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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/811,703	03/19/2001	Timothy J. Wojcik	81359N-R	9473

7590

02/26/2003

Milton S. Sales  
Patent Legal Staff  
Eastman Kodak Company  
343 State Street  
Rochester, NY 14650-2201

EXAMINER

LIANG, LEONARD S

ART UNIT

PAPER NUMBER

2853

DATE MAILED: 02/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/811,703

Applicant(s)

WOJCIK ET AL.

Examiner

Leonard S Liang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-34, 38 and 40-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-34, 38 and 40-43 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,3. 6) ☐ Other: \_\_\_\_\_

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**DETAILED ACTION*****Claim Rejections - 35 USC § 103***

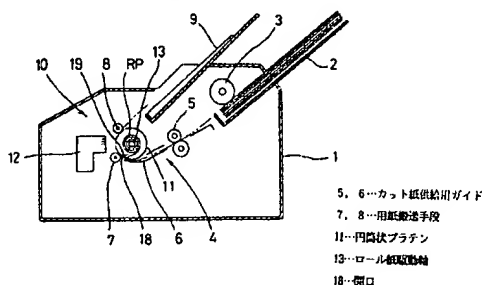
The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-4, 6-7, 9-10, 13-19, 21, 24, 26-27, 31-34, and 40-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikumura et al (JP Pat 405147284) in view of Kenbo (JP Pat 358028393).

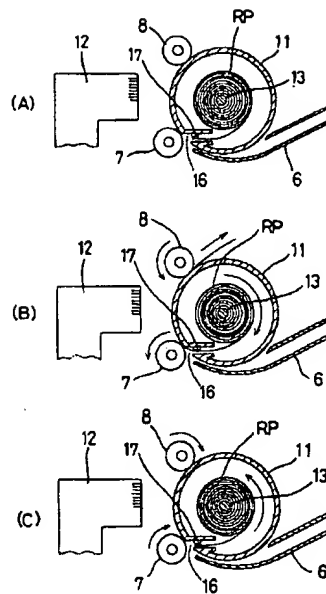
Kikumura et al discloses:

- {claim 1} printer system for producing variable sized printed receiver media (figure 1, reference 2, RP as shown below; Detailed Description, page 3, paragraph 0018; variable sized printing inherent in light of roll sheet RP and end of printing checker) comprising:

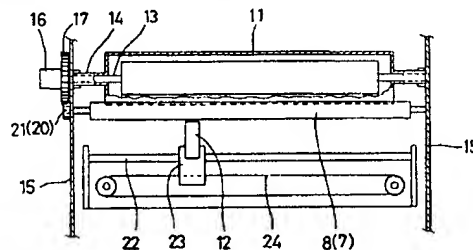


a receiver media handling system for an inkjet printer having an internal media supply roll (figure 3A-C, reference 13, RP as shown below);

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rotary drum (figure 3, reference 11); receiver media feeder (figure 3A-C, reference 16-17); an inkjet printhead (figure 2, reference 12 as shown below) for printing images within an image area on the receiver media from the supply roll;



and a post-print treatment station (figure 1, reference 9)

- {claim 2} lead edge clamp (figure 1, reference 8); motorized means (Detailed Description page 2, line 24; page 3, lines 19-22)
- {claim 3} the rotary drum is adapted to run causing the cut receiver media to unload onto the post-print station (Detailed Description, page 3, paragraph 0017, 0018)
- {claims 4 and 21} drive roller (figure 3, reference 7)
- {claim 6 and 19} lead edge clamp (as taught in claim 2) for retaining the receiver media from the supply roll in a printing position by tensioning the receiver media from the supply roll between the lead edge clamp and the receiver media supply roll (figure 3, reference 8)
- {claims 7 and 17} rotary drum returns to receiver media feed position to begin new cycle (figure 3C; Detailed Description page 3, lines 19-21)

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- {claims 10 and 26} in-feed guide which causes cut receiver media to exit onto a paper tray (figure 1, reference 9)
- {claim 13} printhead adapted to translate across rotary drum (figure 2, references 11, 23)
- {claim 14} A printer system comprising an internal receiver media supply roll, a printhead for printing images on receiver media from the supply roll, and a receiver media handling system for producing variable sized printed receiver media (as taught in claim 1); a drum having a tube-shaped outer surface (as taught in claim 1); a receiver media feeder (as taught in claim 1); clamp (figure 1, reference 7, 8); motorized means for causing the receiver media to move in a first direction from the supply roll to a printing position on the drum and to move in a second direction opposite the first direction to advance the receiver media to a cutting position following printing (Detailed Description page 2, line 24; page 3, lines 19-22)
- {claim 15} the drum is a rotary drum (figure 1, reference 11)
- {claim 16} causing the rotary drum to rotate so as to position the cut receiver media to exit (as taught in claim 3)
- {claim 18} lead edge clamp (figure 1, reference 7)
- {claim 27} A method of printing to form different sizes of printed cut receiver media; drawing the receiver media from a supply roll stored within a tube-shaped drum so that the drawn receiver media is moved and supported along an outer surface of the drum (as taught in claim 1; method implied by apparatus disclosure); retaining an edge of the receiver media from the supply roll at a location about the rotary drum (figure 1, reference 7, 8); printing an image on the receiver media that is supported on the outer surface of the drum (as taught in claim 1)
- {claim 31} defining an image area on the receiver media for printing (inherent to invention)
- {claim 32} tensioning the receiver media around the rotary drum through the receiver media supply roll (figure 1)
- {claim 33} the tensioning step is followed by the step of activating the drum to rotate (figure 3B)
- {claim 34} the activating step is followed by the step of translating a printhead across the rotary drum for printing images on the receiver media within the image area (figure 2, Detailed Description, reference 0017 and 0018)

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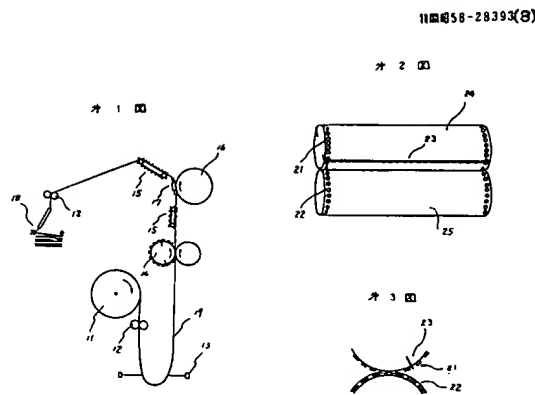
- {claim 43} rotary drum returns to a paper feed position for the next cycle (figure 3C; Detailed Description, page 3, lines 19-21)

Kikumura differs from the claimed invention in that it does not disclose:

- {claim 1} a plurality of cutter notches; a cutting blade adapted to cooperate with the cutter notches for cutting receiver media at any one of the cutter notches for cutting receiver media at any one of the cutter notches in accordance with a selected one of plural different sizes
- {claim 9} determining the location to cut the receiver media utilizing the image area for a current print job
- {claim 14} a plurality of cutter notches predisposed at predetermined circumferentially spaced location on the drum; cutting blade; in the cutting position, the cutting blade cooperates with one of the cutter notches to cut the printed receiver media from the supply roll to form the printed cut receiver media to be produced
- {claim 24} rotary cutter wheel
- {claim 27} rotating the drum to advance the receiver media to a position where a cutter may cut the receiver media at any one of plural predetermined locations on the receiver media in accordance with a cut receiver media size selected; cutting the receiver media; removing the cut receiver media
- {claim 40} in the cutting step a cutter blade comes in contact with the receiver media on the rotary drum by running the cutter blade against a cutter notch on the outer surface
- {claim 41} rotating the rotary drum so that a cutting blade is opposite one of plural selected notches that are formed on the outer surface of the drum and which notches are circumferentially spaced along the outer surface of the drum
- {claim 42} in the removing step, the rotary drum rotates to advance the cut receiver media onto a path of a stripper guide

Kenbo discloses:

- {claims 1, 14, and 27} plurality of cutter notches (figure 1, reference 22; abstract); cutting blade (figure 1, reference 21; abstract)



- {claim 24} rotary cutter wheel (figure 2, reference 21)
- {claim 40} in the cutting step a cutter blade comes in contact with the receiver media on the rotary drum by running the cutter blade against a cutter notch on the outer surface (figure 2, reference 21-22)
- {claim 41} rotating the rotary drum so that a cutting blade is opposite one of plural selected notches that are formed on the outer surface of the drum and which notches are circumferentially spaced along the outer surface of the drum (figure 2, reference 21-22)
- {claim 42} in the removing step, the rotary drum rotates to advance the cut receiver media onto a path of a stripper guide (figure 1, reference 8, 9; rage 3, paragraph 0018)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the cutter notches, cutter blades, and cutter wheel disclosed by Kenbo into the invention of Kikumura et al in order to cut the receiver media. The motivation for the skilled artisan in doing so is to gain the benefit of printing on an inexpensive long rolled sheet and dividing the sheet by cutting (abstract). The combination naturally suggests the cutter blade cooperating with the cutter notches for cutting the receiver media at any one of the cutter notches in accordance with a selected one of plural different sizes; determining the location to cut the receiver media utilizing the image area for the current print job; a post-print station adapted to receive the variable sized printed receiver media after the receiver media is cut from the supply roll; rotating the drum to advance the receiver media to a position where a cutter may cut the receiver media at any one of plural predetermined locations on the receiver media in accordance with a cut receiver media size selected.

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2. Claims 5, 22, and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikumura et al (JP Pat 405147284) in view of Kenbo (JP Pat 358028393) as applied to claims 4 and 21 above, and further in view of Kamano et al (US Pat 6375319).

Kikumura et al in view of Kenbo discloses:

- {claim 29} driving the receiver media around the rotary drum and out to a lead edge clamp (figure 1, reference 8)
- {claim 30} guiding the receiver media around the circumference of the rotary drum (figure 3B)

Kikumura et al in view of Kenbo differs from the claimed invention in that it does not disclose that the drive roller is retractable and configured to retract for printing.

Kamano et al discloses a retractable feed roller (figure 2, reference 91; column 5, lines 56-67; column 6, lines 1-6)

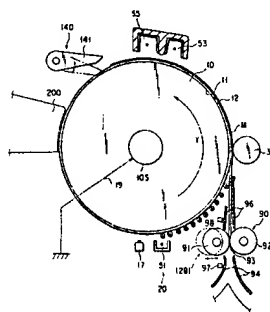


FIG. 2

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the retractable feed roller disclosed by Kamano et al into the invention of Kikumura et al in view of Kenbo so that the roller is retracted for printing. The motivation for the skilled artisan in doing so is to gain the benefit of preventing a load from being applied to the rotary drum which rotates the paper sheet (column 6, lines 3-6).

3. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kikumura et al (JP Pat 405147284) in view of Kenbo (JP Pat 358028393), as applied to claim 1 above, and further in view of Kakutani et al (US Pat 6299283).

Kikumura et al in view of Kenbo differs from the claimed invention in that it does not disclose that the amounts of receiver media from the supply roll on the outer surface of the rotary drum is constant for all requested print formats.

Kakutani et al discloses, with respect to claim 8, a printing apparatus with constant feed (abstract). Thus, it is inherent to the invention that the receiver media from the supply roll on the outer surface of the rotary drum is constant for all requested print formats (since the actual amount of supply media that is fed is the same despite the requested print format). Kakutani



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teaches that the invention "improves image quality by mitigating the effect of any irregularity that may be present in the nozzle pitch, the jetting Feature and the like." (column 1, lines 63-65)

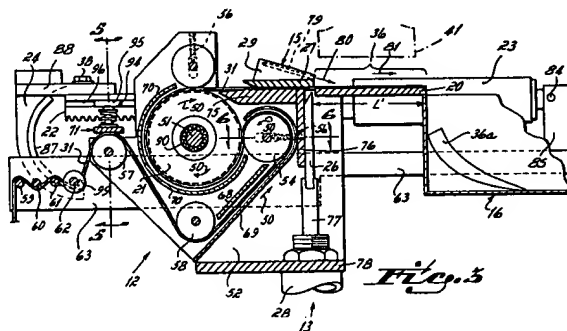
It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Kakutani et al into the invention of Kikumura et al in view of Kenbo so that the amounts of receiver media from the supply roll on the outer surface of the rotary drum is constant for all requested print formats. The motivation for the skilled artisan in doing so is to gain the benefit of improved image quality, as taught above.

4. Claims 11 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikumura et al (JP Pat 405147284) in view of Kenbo (JP Pat 358028393), as applied to claims 2 and 18 above, and further in view of Clay (US Pat 4282808).

Kikumura et al in view of Kenbo differs from the claimed invention in that it does not disclose an outer guide shoe adapted to guide the receiver media from the supply roll toward the lead edge clamp.

Clay discloses, with respect to claims 11 and 20, an outer guide shoe (figure 3, reference 70; column 4, lines 32-35). Clay teaches that the guide shoe aids in preventing backlash of the endless tape strip 31 (i.e. receiver medium) as it proceeds through the tape feed mechanism 12 (column 4, lines 32-35)

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It would have been obvious to one having ordinary skill in the art at the time the invention was made incorporate the invention of Clay into the invention of Kikumura et al in view of Kenbo in order to guide the receiver media from the supply roll toward the lead edge clamp. The motivation for the skilled artisan in doing so is to gain the benefit of being able to prevent backlash of the receiver media, as taught above.

5. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kikumura et al (JP Pat 405147284) in view of Kenbo (JP Pat 358028393), as applied to claim 1 above, and further in view of Drake (US Pat 5098503).

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Kikumura et al in view of Kenbo differs from the claimed invention in that it does not disclose that the printhead is page-width.

Drake discloses, with respect to claim 12, a page-width printhead (column 2, lines 7-8). Drake teaches that having a page-width printhead is desirable because it allows high speed printing to be performed (column 2, lines 7-8).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the page-width printhead disclosed by Drake into the invention of Kikumura et al in view of Kenbo so that the printhead is page-width. The motivation for the skilled artisan in doing so is to gain the benefit of allowing high-speed printing to be performed, as taught above.

6. Claims 23 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikumura et al (JP Pat 405147284) in view of Kenbo (JP Pat 358028393), as applied to claim 14 above, and further in view of Bickoff et al (US Pat 5482389).

Kikumura et al in view of Kenbo differs from the claimed invention in that it does not disclose that the cutting blade is a retractable cutting blade.

Bickoff et al discloses, with respect to claims 23 and 25 a retractable cutting blade (figure 1, reference 7; column 2, lines 54-55; abstract). Bickoff teaches that such a retractable cutting blade offers many advantages in terms of simplicity, economy of design, maintainability, and reliability (column 1, lines 8-13).

U.S. Patent

Jan. 9, 1996

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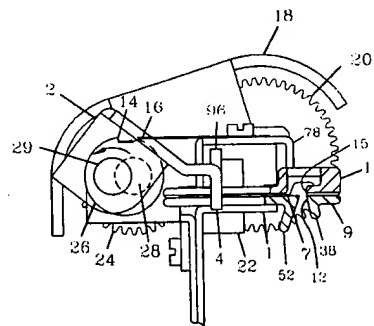


FIGURE 1

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the retractable cutting blades disclosed by Bickoff et al into the invention of Kikumura et al in order to cut the receiver media at any one of the cutter notches. The motivation for the skilled artisan in doing so is to gain the benefit of the many advantages of the invention, in terms of simplicity, economy of design, maintainability, and reliability, as taught

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above. The combination naturally suggests that the rotating cutter wheel is configured to retract from the drum.

7. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kikumura et al (JP Pat 405147284) in view of Kenbo (JP Pat 358028393), as applied to claim 27 above, and further in view of Nuita et al (US Pat 6050683).

Kikumura et al in view of Kenbo differs from the claimed invention in that it does not disclose:

- {claim 38} the cutting step is preceded by the step of deactivating the rotary drum

Nuita et al discloses:

- {claim 38} deactivating the rotary drum (column 1, lines 35-40)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Nuita et al into the invention of Kikumura et al in view of Kenbo so that the cutting step is preceded by the step of deactivating the rotary drum. The motivation for the skilled artisan in doing so is to gain the benefit of preventing a printhead from being damaged due to a rise of the paper sheet (column 1, lines 36-40). The combination naturally suggests that the cutting step is preceded by the step of deactivating the rotary drum since cutting is part of the paper removal process.

### ***Response to Arguments***

8. Applicant's arguments filed on 12/02/02 have been fully considered but they are not persuasive.

With respect to Kikumura et al, the applicant submits that "the receiver media is provided as a roll of preperforated areas and the operator is expected to tear off the printed sheet and place same in a tray 9. With the system of this reference there can be no variability in print size as all sheets are likely to be the same size in order to reduce waste." Upon inspection, the examiner did not find the teaching of a preperforated roll in Kikumura et al. The examiner did find that Kikumura discloses "An end of printing checks the printing mode at this time by the following step S5. If it is checked that it is the printing mode of roll-sheet RP, all operation will be completed here. The perforation is put into roll-sheet RP for every page, and a user can separate the printing page portion by pulling roll-sheet RP discharged from the conveyance roller 8 to the delivery tray 9." This implies that perforations are put into the sheet **after** printing, which naturally suggests variability in print sizes. Furthermore, even if the roll were preperforated, this

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would not affect the ability to print in variable print sizes. Perforation is not the same as separation. Printing could occur on a variable number of sheets before actually being separated.

With respect to Kenbo, the applicant asserts that "this reference also fails to provide for variable size prints..." Without acknowledging the validity of this assertion, the examiner submits that the argument is moot since it has been shown that the primary reference Kikumura et al does indeed disclose variable size printing.

With respect to Nuita et al, the applicant asserts that "this reference is strictly limited to a printer wherein only cut receiver sheets are used and is thus not relevant to a printer system wherein receiver media is provided from a supply roll." Without acknowledging the validity of this assertion, the examiner submits that the argument is not relevant in light of the above rejection. Nuita et al is used to teach the deactivation of the rotary drum, not whether cut-sheets or a roll is used. The use of a rotary drum for printing is pertinent to both Kikumura et al and Nuita et al.

With respect to Bickoff et al, the applicant asserts that "the receiver media is being cut not on the drum on which printing occurs but at a location off of the drum." Without acknowledging the validity of this assertion, the examiner submits that the argument is not relevant in light of the above rejection. Bickoff et al is used to teach retractable cutting blades, not the process of cutting on a drum. Whether Bickoff et al teaches cutting on the drum is not relevant to its teaching of retractable cutting blades.

With respect to Watanabe et al, the applicant asserts that "Watanabe et al is directed to a cut sheet printer system and thus appears not to be pertinent to applicant's invention. However, Watanabe et al is used to teach a retractable paper guide, which is pertinent to guiding paper regardless of whether it takes the form of a roll or a cut sheet.

The arguments concerning Piatt et al are rendered moot in view of the above rejection.

The applicant submits that "The Examiner has combined multiple references using applicants' specification as a road map without any indication in the references themselves suggesting their combination." As seen in the rejection above, motivation to combine is clearly disclosed in all cited prior art.

However, this action is made non-final because a new rejection was made in regards to claims 5, 22, and 28.

### *Conclusion*

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Keller et al (US Pat 6204871) discloses a recording drum arrangement.

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Cleary et al (US Pat 4769652) discloses a method and apparatus for handling sheet materials.

Fujimoto (US Pat 4135198) discloses a sheet clamp apparatus.

Burke (US Pat 5121139) discloses a compact ink jet printer having a drum drive mechanism.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard S Liang whose telephone number is (703) 305-4754. The examiner can normally be reached on 8:30-5 Monday-Friday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (703) 308-3126. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7724 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

lsl

LSL

February 21, 2003

  
John Barlow  
Supervisory Patent Examiner  
Technology Center 2800